

# **TIIAP FY 1999**

## **Project Narrative**

New Hampshire Community Technical  
College

Grant # 33-60-99037  
Education, Culture, and Lifelong Learning  
Nashua, New Hampshire

## **A. Project Definition:**

The lack of an educated workforce is the issue that New Hampshire Community Technical College proposes to address with funding through this application. Interviews with area business/industry leaders conducted by the College's Technology Deployment Center in preparation for the development of this application suggested the following; (1) within business/industry's current workforce, the educational levels are very low; most reporting that more than a third of their employees have not graduated from high school; and (2) reading levels are so low, among many of their workers, it would be difficult for most to advance within their company without intensive remedial educational programs. This group is affectionately referred to as the "working poor" people with few skills, who labor for years at low-level positions with no hope of ever advancing. Our application will address the critically identified issues of the "working poor." For example, many business/industry leaders believe that in order to remain competitive into the next millenium, they must adapt new technology to their operation. However, that is expensive and there is no guarantee that the current workforce will be able to adjust to the changes or that there will be enough skilled workers to assume new jobs created by advanced technology. Business/industry leaders point to the many barriers their workers encounter when looking to improve upon their educational abilities including, work schedules, family duties, child care, learning styles, lack of access and motivation.

To break down the barriers that "working poor" members of the workforce encounter, the Nashua campus of the NHCTC proposes the development of a Cooperative Help Desk that will allow local companies and their employees the ability to communicate directly, through an Internet connection with educators and technicians at the college. Company employees having access to computer terminals located in their offices and on plant floors, will be able to access non-traditional educational services 24-hours a day. Within each participating company, a number of employees will be trained by NHCTC staff, students and volunteers on the use of the system, they in-turn will provide support and assistance to other employees seeking to participate in the educational/training programs via the network. The proposed educational system offers distance learning that includes a series of skill sets developed by college faculty members. These skill sets have been pre-tested at area businesses using traditional educational methods. The skills sets will be adapted to the new technology and the following programs will become available to program participants; remedial education, computer literacy, certificate programs, work based learning opportunities, career exploration, vocational training, case management and follow-up.

Focusing exclusively on business/industry in the greater Nashua area, the following realistic, measurable outcomes are proposed over the first three years of the grant; (1) a non-traditional approach to education and training will become available to "working poor" employees of greater Nashua's business/industrial community. Programs will be available at the business that the participant works via a computer network; (2) educational levels of participants will be measured using pre and post-tests; (3) individual portfolios detailing skill levels of all participants will be maintained and evaluated monthly to determine progress; (4) selected company officials will be trained by college

staff to provide support and act as mentors to other company employees participating in training/educational programs; (5) four companies and two community service organizations committed to providing educational and training opportunities to low income populations will be linked in the first year of operation. We anticipate 120 members of both the workforce and the community to enroll in the program. While levels of learning will vary significantly among participants, previous experience suggests that with the support of company management, upwards of 80% will successfully complete a specific education/training program within two years. Additional sub-goals of the project include linking programs and national databases to local businesses so they may receive immediate access to information and support with problems they encounter in their daily operation. The NH Manufacturing Extension Partnership has participated in the development of the project and believes there are opportunities to connect with area-manufacturing businesses using its National Database.

## **B. Evaluation:**

It is our intention through the introduction of advanced technology to provide non-traditional educational and training programs over a computer network to employees of Nashua's business/industry community. Through the delivery of educational and training programs, it is our goal to enhance the skill levels of "working poor" members of the workforce. Therefore, an independent evaluator will be selected to review all activities of the program including; (1) the College's ability to implement new technology, linking local business/industry, (2) its ability to market the concept beyond its current partnership arrangements; (3) the program's effect on people enrolled; and (4) participants success in obtaining higher skilled/higher paying positions.

The evaluator will use a multi-tiered approach to document project results. *First*, the system will have to be established before members of the workforce can access services, therefore, the evaluator will use information provided in this application in order to document; (a) the length of time it took to implement the system, (b) changes that occurred in the implementation process; (c) budget; and (d) initial impact, staff and business impression of operation. This will occur in face-to-face meetings conducted once a month with program staff. The evaluator will design reporting forms for program staff to use to document activities. *Second*, the evaluator will survey and conduct face-to-face interviews with people receiving educational/training via the system. Documented results will be arrived at by using pre and post-test assessments of all participants, including an examination of (a) the number of people served, (b) their performance, (c) program attrition, and (d) additional and continued enrollment. The evaluator will seek to determine the effectiveness of the project by analyzing/measuring outcomes of program participants at designated times during implementation and through a three year tracking process following successful completion. The evaluator will review all technology to determine user-friendliness and if the project successfully attracted the "working poor" it intended to attract. Information obtained by the evaluator will be disseminated to project staff at monthly meetings; adjustments in the program will be made based on information provided. *Third*, the evaluator will seek information from local business/industry on the progress of employees. Through face-to-face interviews

with managers/owners, the evaluator will determine if program participants improved their educational abilities enough to enhance their employment situation. The evaluator will seek to determine the number of people who advanced to skilled positions following successful completion of the program. *Fourth*, the evaluator will communicate directly with an Advisory Committee comprised of business representatives, program participants, faculty and staff. The advisory committee will assist Help Desk staff develop program priorities, meeting bi-weekly to assess activities and program progress.

The evaluator will provide interim reports documenting the program's progress to program staff, partnering businesses, organizations and funding agencies following the first and second years of operation. A final report will be published following the third year of operation.

The Municipal Consulting Group, a local research and development firm specializing in research, technical support, evaluation and community economic development services to cities, towns and counties throughout the state has assisted in the planning and development of this application. Samuel Maranto, President of Municipal Consulting reviewed the project and offered recommendations for inclusion in the application. Municipal Consulting has submitted a letter of interest outlining its approach and capabilities. (See Appendix B )

### **C. Significance:**

The Cooperative Help Desk will reside in the Office of Business and Industry, Center for Training and Business Development at the Nashua Campus and combines the College's resources with the NH Manufacturing Extension Partnership, local business/industry, support services organizations and local government. The Help Desk is designed to incorporate a national telecommunications vision that supports easy-to-use applications that will assist members of Nashua's "working poor" overcome traditional barriers that currently stand in the way of their ability to become self-sufficient. The concept of linking education/training programs directly with local business/industry using advanced telecommunications is unique. The technology proposed will interface with computers located in collaborating businesses, linked directly to the Help Desk, they will provide immediate access to educational and training services 24-hours a day. Program participants will have direct access to a diverse group of trained educators and support people at the College. The "working poor" participating in the program will access education and training programs from their workstation or other access points, often during regular working hours. The Cooperative Help Desk will serve as a model, which can be easily replicated to other localities throughout the state and nation through continued enhancement of electronic technology. Strategically located in Nashua, NHCTC has the facilities, access to other sites, and the telecommunications infrastructure necessary to disseminate information and services to NH businesses located in rural and urban communities.

## **D. Project Feasibility**

Advanced telecommunications provides unlimited potential for the dissemination of information to a variety of businesses. Using the World Wide Web, access to information becomes readily available at reasonable costs. Adapting this technology, so that it meets the needs of the “working poor,” is the goal of the Help Desk. The request includes equipment in the form of computers and associated hardware, software, and staff to construct, operate and maintain the Help Desk. Through the use of computer terminals located at individual companies and linked to a network server, located at the Nashua campus, local businesses will have access to worldwide databases. Existing multimedia technology software will be used to deliver educational and training programs. Currently, the NHCTC system is using a web-based site on the Asynchronous Learning Network to deliver programs. This model, which will be replicated for our use has, a built-in management system to enable faculty and other administrators to track participants’ progress and performance. Technical advice is available over the network or through direct contact with technicians at the NHCTC’s Technology Deployment Center.

***(1) How it will operate with other systems;*** The Cooperative Help Desk will use the T-1 line already in place at NHCTC. Existing telephone lines and switches in place at the college have the capacity to accommodate the technology proposed by the Cooperative Help Desk. Recent upgrades to NHCTC’s internal technology infrastructure allow it to exchange text, images, sound, video and other media across a global network. Once linked to our existing system, the Help Desk will offer an advanced technology that meets the needs of “end users” and will prove to be cost-effective. Currently the college provides extensive education and training to business/industry in the greater Nashua area, however the methods remain traditional, with an instructor traveling to a site to teach a class. The current system, while effective for some, is not flexible as it does not allow for 24-hour access and it has not reached the population with significant barriers.

***(2) Technological alternatives that you examined and why this technology was selected;*** In planning and developing the project, we conducted considerable research on models being developed by the Technical College System and NH Job Training Council that linked educational programs to family resource centers located in Public Housing complexes using a web site based on the Asynchronous Learning Network. In 1997, NHCTC received a TIAP grant to develop a Virtual Campus at its Stratham site. The project proposed linking technology with low-income community settings in order to provide education and training as part of the school to work program. Many of the same ideas and technologies currently under development at the Stratham site will be incorporated into our project.

The most significant difference between the two projects is the manner in which training modules and skill sets are developed in direct cooperation with local business/industry, staff and program participants. This method will ensure that the needs of program participants, business/industry and staff are being met.

Before deciding on the type of technology outlined in this application, we also examined the potential for developing a Mobile Computer Lab that would act as a micro-campus of the College by providing education and training to disadvantaged people in remote locations using lap top computers. Research on the model, provided evidence that it was not the most cost-effective method of providing education and training since it required transporting computer equipment from site-to-site, as well as requiring on-site professional instructors. We decided on the technology proposed in this application because it allows us to develop programs that meet the specific needs of program participants and the businesses they are employed by. Using this type of technology allows for easy access by program participants anytime, anywhere. Changes in the curriculum and information delivered to program participants will occur rapidly. Finally, the Help Desk is easily replicated in a variety of locations, especially remote rural areas.

**(3) *How it can grow to accommodate additional users;*** Developers of the plan felt that once the program demonstrates its effectiveness, it will become self-sustaining as other businesses seek to become linked. The project has budgeted for a server with the capacity to accommodate the six businesses linked in the first year, as well as the additional fifteen that will be linked to the Help Desk in the second and third year. As the project is disseminated to regional businesses throughout the state, additional servers will be added to meet the demand.

**(4) *Plans for maintaining the program;*** The initial businesses and organizations linked to the Help Desk will not be charged subscriptions fees. However, subsequent businesses will be required to subscribe and pay a user fee in order to access the services. Fees for service will be developed by the advisory committee during the first year of operation. User fees charged to new businesses linked to the system will help cover the cost of maintaining the Help Desk, upgrading systems, replicating the model and exploring new opportunities made possible by advances in technology.

**(5) *Applicant Qualifications;*** NHCTC has the capacity to develop and sustain the programs and activities outlined. It was the first college in New England to offer an associate degree in telecommunications and it has designed numerous programs for companies large and small throughout southern NH. In his letter of support, District 2 Congressman Charles Bass discusses the Nashua Campus and its history of leadership in computer technologies and how it has been dubbed the “Center for Excellence for Telecommunications.” (Support Letters Appendix A)

In order to develop a successful model, NHCTC has committed resources in the form of in-kind services amounting to \$352,851. Its commitment to the project comes in the form of equipment, faculty and staff support and administrative space. NHCTC’s Office of Business and Industry will oversee the development and operation of the Help Desk; it has the experience, resources and flexibility to assess company needs and develop suitable programs to meet those needs. Anthony J. DeRosa, Vice President of the Office of Business and Industry, oversees a professional staff responsible for the development of cooperative projects between businesses and support service organizations. Their efforts result in enhanced ability of local business/industry to compete more efficiently through

assessment and workforce development, job analysis, strategic planning, organizational development, employment development, customized training, customized certificate programs and college credit programs. With over twenty years of experience, Mr. DeRosa has a special expertise in developing training curricula for corporate and community organizations. Mr. DeRosa will hire and supervise faculty and staff responsible for the development and operation of the Help Desk. David Miller, Professor of Computer Science will provide technical assistance serving as the Assistant Director. Mr. Miller will use his expertise in developing computer based training programs to assist Help Desk staff establish education and training curricula. Additional support from NHCTC's faculty and staff will come from William McIntyre, Director of the College's Learning Resource Center. He will assist by providing training and support for student interns and faculty members who will work with program participants. Additional assistance in developing, operating and delivering services through the Help Desk will be provided by campus technicians, telecommunications staff and student interns. (Resumes of key people Appendix F).

**(6) Budget, Implementation Schedule, and Timeline;** The Cooperative Help Desk proposes a budget of \$884,100 over a three-year timeframe. The request represents \$441,349 in federal funding and \$442,751 in local matching money. New Hampshire Community Technical College will provide matching funds amounting to \$352,851. Local business/industry partners and community organizations participating in the pilot will provide matching funds amounting to \$89,900. The project will be implemented in stages and will begin in earnest upon grant award. The Help Desk will be linked to cooperating businesses within six-months of funding notification. (Refer to Timeline Appendix C).

#### **E. Community Involvement:**

The concept of developing a Help Desk resulted from a series of meetings conducted by faculty and staff with private business/industry and area social service agencies providing educational and training programs for low-income people. A core group of meeting attendees have agreed to serve on the advisory committee to meet regularly with program staff to assess the program's progress.

NHCTC's Nashua campus has developed a strong working relationship with many area businesses that have supported the development of previous educational and training programs. The Help Desk will serve to promote this relationship, allowing NHCTC to expand upon the number of businesses served. At the urging of local businesses, NHCTC has agreed to commit time and resources to develop the Help Desk. Support from local business coupled with funding from TIIAP allows for a pilot study to be conducted during the program's implementation. The pilot study will allow staff to address problematic issues, initiate a comprehensive evaluation and based on recommendations from the advisory committee implement the necessary changes. Four local businesses, Bell Atlantic, Benchmark Electronics, Circuitest, and Gilchrist Metal Fabricating have agreed to participate in the pilot study. Also, Nashua's Adult Learning Center and NH Job Training Council, two supportive service agencies that provide

education and training programs to low-income, disadvantaged people residing in Nashua's inner city neighborhoods, have also agreed to be part of the pilot study. Bell Atlantic has committed lap top computers that are part of a program that supports technical training for faculty and staff. Other partners have committed space at plants and offices. Each organization has previously participated with NHCTC in the development of educational and training programs for their employees. Collectively, college staff and their business partners believe that the development of new technology will allow for the promotion and delivery of flexible, seamless educational and training programs. Within three years, over twenty business/industry sites located in rural and urban areas of the state will be linked to the Help Desk.

#### **F. Reducing Disparities:**

The *Greater Nashua Area Community Health Needs Assessment* provides evidence that selected Nashua neighborhoods are among the poorest in the state of New Hampshire. The survey documents that 38% of Nashua's inner city residents live in poverty because they face barriers that preclude them from participating in the "American Dream" of owning a home and becoming truly self-sufficient. They lack the resources to afford childcare, have limited access to education and training opportunities, lack transportation and employment skills to obtain high paying jobs. A survey of 250 inner city families, many of them the "working poor" that this project targets, revealed that job security and jobs that provide insurance and medical benefits, plus affordable housing and child care were among the most pressing problems they face. The principle reason given for continued residency in this locale was their present salary was not adequate to afford alternate housing. Of the families surveyed, 185 or 74% have a high school diploma or less; 90 or 36% of the total, have completed fewer than 10 years of education. (Appendix D)

In preparation for this application, we conferred with staff at Nashua's Adult Learning Center and the New Hampshire Job Training Council to obtain additional information on education and employment patterns of families residing in Nashua's inner city neighborhoods. Last year they conducted a survey of families who had participated or had expressed an interest in participating in, programs provided by the two agencies. Community residents were asked about their current education and employment status, 60% of those interviewed were employed in manufacturing, construction or transportation and had fewer than 12 years of education.

Simultaneously, surveys of Greater Nashua business/industry provided evidence that there are an insufficient number of qualified people entering the workforce. Over the past five years, Nashua's large and small businesses have encountered major problems finding people to employ for skilled positions. Applicants for employment do not have the desired education or the technical skills required. Further complicating the problem, many local businesses report that more than a third of their current workforce has not graduated from high school, and reading levels are so low most employees are unable to advance beyond their current jobs without an intensive remedial educational program. (Appendix E)



Finally, New Hampshire ranks last, among New England states, in its level of financial support for local industry and manufacturing. The NH Manufacturing Extension Partnership reports that its efforts to obtain federal funds are made more difficult because the state does not participate in providing the matching dollars needed to maximize federal contributions. Previous efforts to obtain funding to enhance NH's support of manufacturing have fizzled because proponents did not have a specific project or the results of a comprehensive evaluation to use as supporting documentation. We believe there is an opportunity to use the Help Desk model to develop legislation increasing the states level of funding for local industry and manufacturing. (Appendix H)

#### **F. Documentation and dissemination:**

Regular reports on progress achieved throughout the implementation process will be provided to the project's business/industry partners, faculty/staff and program participants. Media coverage of business/industry involvement will be encouraged through regular press releases to local newspapers and trade journals. Interim reports from the evaluator detailing progress related to the development of technology, networking, linking of businesses, effectiveness of training, number of participants and marketing efforts will be published and available to the public following the first and second year of the project. A final report will be published and distributed to media outlets, internet databases and professional publications following the third year of operation. Project staff will make presentations to professional organizations at National Conferences, at trade associations meetings and at local and regional gatherings and seminars. Program participants and members of the Help Desk advisory committee will be encouraged to assist program staff in marketing and promoting educational/training programs to other businesses, politicians and community organizations.

Finally, we propose to use the Help Desk model as an example of the type of cooperation that is possible with the support and collaboration of local business/industry and the NH Community Technical College system. With the information developed by the evaluator and the support of business/industry partners, community supportive service organizations, program participants and local government, we propose to develop legislation that will call for an appropriation increasing the state's support of business/industry. NH's General Court will be provided with information of the potential value that enhanced levels of support may provide to both the state and its business/industrial community.